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| 09/341,085 | 07/02/1999 | CAREL J.L. VAN DRIEL | PHN17.110 | 4715 |

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| EXAMINER | |
|---|---|
| NGUYEN, THU HA T | |
| **ART UNIT** | **PAPER NUMBER** |
| 2155 | |

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
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| 3 MONTHS | 04/09/2007 | PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/341,085 | VAN DRIEL, CAREL J.L. | |
| | Examiner | Art Unit | |
| | Thu Ha T. Nguyen | 2155 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *03/15/07*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1 and 3-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 3-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

1. Claims 1, and 3-20 are presented for examination.

## Response to Arguments

2. Applicant's arguments filed August 03, 2006 have been fully considered but they are not persuasive because of the following reason:

3. Applicant argues that either Hiekali or Hiller teach or suggest each of the channel cluster modules is arranged for transmitting downstream signals on a carrier frequency, selected from a plurality of known carrier frequencies. In response to applicant's argument, the examiner submits that Hiller does teach or suggest the feature of each of the channel cluster modules is arranged for transmitting downstream signals on a carrier frequency, selected from a plurality of known carrier frequencies as shown in col. 3, line 20-col. 4, line 36, col. 10, line 20-col. 11, line 15. Therefore, the examiner asserts that cited prior art teaches or suggests the subject matter broadly recited in independent claims 1, 7, 10, 15 and 20. Claims 3-6, 8-9, 11-14, and 16-19 are also rejected at least by virtue of their dependency on independent claims and by other reasons set forth in this office action below.

4. Applicants still have failed to identify specific claim limitations that would define a patentable distinction over cited prior arts. Accordingly, rejections for claims 1, and 3-20 are rejected below.

5. Therefore, the examiner asserts that cited prior art teaches or

suggests the subject matter broadly recited in independent claims 1, 7, 10, 15 and 20. Claims 3-6, 8-9, 11-14, and 16-19 are also rejected at least by virtue of their dependency on independent claims and by other reasons set forth in this office action below.

6. Applicants still have failed to identify specific claim limitations that would define a patentable distinction over cited prior arts. Accordingly, rejections for claims 1, and 3-20 are rejected below.

**Claim Rejections - 35 USC § 103**

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 1, 3-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hiekali** U.S. Patent No. **5,619,500**, in view of **Hiller et al.,** (hereinafter Hiller) U.S Patent No. **5,426,636**.

9. As to claim 1, **Hiekali** teaches the invention as claimed, including communication system comprising:

a plurality of terminals (figures 2, 4, element 205) that are connected to an access network (figure 2-3, ATM network 300, col. 3 lines 3-25); and

said access network, having a transmission network (figures 2-3, i.e., *ATM network 300, frame relay network 302-N-1, SMDS network 302-N-M*), and an access node (figures 2-3, *i.e., ATM gateway 302*) connecting said transmission network (i.e., *frame relay network 302-N-1, SMDS network 302-N-M*) to a network switch (figure 2-3, i.e., *ATM switch 301*), each network control element including a network control switch and a plurality of channel cluster modules (figures 3-6, 8-10, abstract, col. 2 lines 5-33, col. 3 lines 3-59, col. 14 lines 20-60 –*The ATM gateway 302 includes a plurality of service interface modules (SIMs) 401-1 through 401-j (i.e., plurality of cluster channel modules). The SIM 401 (figures 4 and 5) receives and processes information (i.e., signal) from the ATM network or ATM switch via cell bus 403 (figure 4) and provides it to the user via one or more T1 channels (i.e., transmitting downstream signal on one or more carrier frequency) and with appropriate data protocol*), said transmission network comprising a plurality of sub-networks correspondingly coupled to said network control elements and to the plural terminals (figures 2-3, col. 3, lines 3-59 –*ATM gate 302 connects to user via frame relay network 302-1, ATM LAN switch 302-N-3, ...SMDS network 302-N-M (i.e., sub-network)*).

However, **Hiekali** does not explicitly teach wherein each of the channel cluster modules is arranged for transmitting downstream signals on a carrier frequency, selected from a plurality of known carrier frequencies, said access node including an access node switch coupled to said network switch, and further including a plurality of

network control elements, said access node switch controlling all switching of the access network without said access node switch knowing a carrier frequency allocated to a terminal coupled to a sub-network of the plural sub-networks.

**Hiller**, in the related art, teaches wherein each of the channel cluster modules is arranged for transmitting downstream signals on a carrier frequency, selected from a plurality of known carrier frequencies (col. 3, line 20-col. 4, line 36, col. 10, line 20-col. 11, line 15), said access node (figures 3-6) including an access node switch (figure 4, *i.e., the second ATM cell switch 600*) couple to said network switch (figures 4-5, *i.e., the first ATM cell switch 600*), and further including a plurality of network control elements (figures 12, 13), said access node switch controlling all switching of the access network without said access node switch knowing a carrier frequency allocated to a terminal (abstract, figures 6-7, 11-12, 20 and 23, col. 11, line 23-col. 12, line 44, col. 26, line 27-col. 27, line 7, col. 28, line 53-col. 29, line 14 *–converting/remapping VPI/VCI and sending to user so that the terminal at the user does not know which carrier frequency is used to send data*). It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention was made to incorporate the teaching of said access node including an access node switch coupled to said network switch and said access node switch controlling all of the access-network-specific switching without said access node switch having to know a carrier frequency allocated to a terminal coupled to a sub-network of the plural sub-networks, as disclosed in **Hiller** into **Hiekali** system because it would have provided a central communication network to manage a large

telecommunication networks that provides flexibility for interconnecting large access switches (abstract).

10. As to claim 3, **Hiekali** teaches the invention as claimed, wherein the channel cluster modules comprise at least one downstream channel module (figure 5, col. 3 lines 60-col. 5 lines 45, col. 6 lines 8-col. 7 lines 15 – ATM gateway 302 includes a plurality of service interface module (SIMs) 401-1 through 401-j (i.e., plurality of cluster channel modules), each of which is capable of communicating to a user via one or more T1 channels (figures 3-4, col. 3, lines 3-40)).

11. As to claim 4, **Hiekali** teaches the invention as claimed, characterized in that the channel cluster module comprises an upstream channel module (figures 5-6, col. 3 lines 60-col. 5 lines 45, col. 6 lines 8-col. 7 lines 15).

12. As to claim 5, **Hiekali** teaches the invention as claimed, wherein a terminal of the plural terminals comprise signaling means for exchanging network layer control information with said network switch (figure 4, abstract, col. 2 lines 5-33).

13. As to claim 6, **Hiekali** teaches the invention as claimed, wherein said network switch comprises proxy signaling means for deriving network layer control information from session layer and/or transport layer information exchanged between a terminal and said network switch (figure 4, abstract, col. 3 lines 60-coi. 5 lines 45).

14. As to claim 7, **Hiekali** teaches the invention as claimed, including access node connectable to a transmission network, and to a network switch, the access node comprising:

a network control element comprises a network control switch and a plurality of channel cluster modules, are connectable correspondingly to sub-networks of said transmission network (figures 2-4, abstract, col. 1 lines 32-col. 2 lines 33, col. 3 lines 3-59 –figures 3-6, 8-10, abstract, col. 2 lines 5-33, col. 3 lines 3-59, col. 14 lines 20-60 – *The ATM gateway 302 includes a plurality of service interface module (SIMs) 401-1 through 401-j (i.e., plurality of cluster channel modules), each of which is capable of communicating to a user via one or more T1 channels. The SIM 401 (figures 4 and 5) receives and processes information (i.e., signal) from the ATM network or ATM switch via cell bus 403 (figure 4) and provides it to the user via one or more T1 channels (i.e., transmitting downstream signal on one or more carrier frequency) and with appropriate data protocol,* figures 2-3, col. 3, lines 3-59 *–ATM gate 302 connects to user via frame relay network 302-1, ATM LAN switch 302-N-3, …SMDS network 302-N-M (i.e., sub-network)*).

However, **Hiekali** does not explicitly teach an access node switch, a plurality of network control elements, wherein each of the channel cluster modules is arranged for transmitting downstream signals on a carrier frequency, selected from a plurality of known carrier frequencies and the access node switch controls all switching of the access network without said access switch knowing a carrier frequency allocated to a

terminal coupled to a sub-network of said sub-networks and said access node switch being connectable to said network switch.

**Hiller**, in the related art, teaches an access node switch, a plurality of network control elements (figures 3-4, *i.e., ATM cell switch 600, figure 6, plurality of access switches 1*); wherein each of the channel cluster modules is arranged for transmitting downstream signals on a carrier frequency, selected from a plurality of known carrier frequencies (col. 3, line 20-col. 4, line 36, col. 10, line 20-col. 11, line 15), and the access node switch controls all switching of the access network without said access switch knowing a carrier frequency allocated to a terminal coupled to a sub-network of said sub-networks and said access node switch being connectable to said network switch (abstract, figures 6-7, 11-12, and 23, col. 11, line 23-col. 12, line 44, col. 26, line 27-col. 27, line 7, col. 28, line 53-col. 29, line 14abstract, figures 6-7, 11-12, 20 and 23, col. 11, line 23-col. 12, line 44, col. 26, line 27-col. 27, line 7, col. 28, line 53-col. 29, line 14 *–converting/remapping VPI/VCI and sending to user so that a terminal at the user does not know which carrier frequency is used to send data*).

It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention was made to incorporate the teaching of said access node including an access node switch coupled to said network switch and said access node switch controlling all of the access-network-specific switching without said access node switch having to know a carrier frequency allocated to a terminal coupled to a sub-network of the plural sub-networks, as disclosed in **Hiller** into **Hiekali** system because it would have provided a central communication network to manage a large

telecommunication networks that provides flexibility for interconnecting large access switches (abstract).

15. As to claim 8, **Hiller** teaches the invention as claimed in claim 1, wherein said access node switch receives, from said network switch, a packet having a field that identifies a network control element of said network control elements and a respective carrier frequency, part of said field being replaced with an identifier of a route from said network control element to a destination terminal of said packet, said packet being transmitted with its field partly replaced for modulation of content of said packet onto the respective carrier frequency (figures 8-10, 14-18). It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention was made to combine the teaching of **Hiekali and Hiller** because it would have provided a central communication network to manage a large telecommunication networks that provides flexibility for interconnecting large access switches.

16. As to claim 9, **Hiller** teaches the invention as claimed in claim 7, wherein said access node switch receives, from said network switch, a packet having a field that identifies a network control element of said network control elements and a respective carrier frequency, said part of said field being replaced with an identifier of a route from said network control element to a destination terminal of said packet, said packet being transmitted with its field partly replaced for modulation of content of said packet onto the respective carrier frequency (figures 8-10, 14-18). It would have been obvious to one of

ordinary skill in the Data Processing art at the time of the invention was made to combine the teaching of **Hiekali and Hiller** because it would have provided a central communication network to manage a large telecommunication networks that provides flexibility for interconnecting large access switches.

17. As to claim 10, **Hiekali** teaches the invention substantially as claimed, including an access node for connecting a network switch to a plurality of sub-networks of a transmission network, the plural sub-networks being respectively connectable to a plurality of terminals, said access node comprising:

said access node being configured to direct a signal from said network switch to a terminal of the plural terminals intended as a destination (figures 2-4, abstract, col. 1 lines 32-col. 2 lines 33, col. 3 lines 3-59 *–ATM gateway 302 directs data packet/signal from ATM switch 301 to user using appropriate protocol*).

However, **Hiekali** does not explicitly teach an access node switch, a plurality of network control elements, transmitted on a plurality of unique carrier frequencies selected from a plurality of known carrier frequencies, and said network switch is relieved of knowing details of said access network that said network switch would otherwise need for directing said signal to an intended destination terminal.

**Hiller**, in the related art, teaches an access node switch, a plurality of network control elements (figures 3-4, i.e., ATM cell switch 600, figure 6, plurality of access switches 1), transmitted on a plurality of unique carrier frequencies selected from a plurality of known carrier frequencies (col. 3, line 20-col. 4, line 36, col. 10, line 20-col.

11, line 15), and said network switch is relieved of knowing details of said access network that said network switch would otherwise need for directing said signal to an intended destination terminal (abstract, figures 6-7, 11-12, and 23, col. 11, line 23-col. 12, line 44, col. 26, line 27-col. 27, line 7, col. 28, line 53-col. 29, line 14 – *converting/remapping VPI/VCI and sending to user*). It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention was made to incorporate the teaching of said access node including an access node switch coupled to said network switch and said access node switch controlling all of the access-network-specific switching without said access node switch having to know a carrier frequency allocated to a terminal coupled to a sub-network of the plural sub-networks, as disclosed in **Hiller** into **Hiekali** system because it would have provided a central communication network to manage a large telecommunication networks that provides flexibility for interconnecting large access switches (abstract).

18. As to claim 11, **Hiekali** does not teaches a network control switch and a translation unit, said network control switch configured for routing said signal received from said access node switch, via said translation unit, to said terminal of the plural terminals, without said access node switch having to know a carrier frequency allocated to said terminal.

However, **Hiller** teaches a network control switch and a translation unit, said network control switch configured for routing said signal received from said access node switch, via said translation unit, to said terminal of the plural terminals, without said

access node switch having to know a carrier frequency allocated to said terminal (abstract, figures 6-7, 11-12, and 23, col. 11, line 23-col. 12, line 44, col. 26, line 27-col. 27, line 7, col. 28, line 53-col. 29, line 14). It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention was made to combine the teaching of **Hiekali and Hiller** because it would have provided a central communication network to manage a large telecommunication networks that provides flexibility for interconnecting large access switches.

19. As to claim 12, **Hiekali** teaches the invention as claimed in claim 11, wherein each of the plural network control elements includes a network control switch connecting the access node switch to respective ones of the plural terminals, said network control switch for routing being a network control switch for said connecting, each network control switch being configured for switching said signal onto a respective one of predetermined carrier frequencies (figure 4, col. 3 lines 3-59).

20. As to claim 13, **Hiekali** teaches the invention as claimed in claim 12, wherein a network control element of the plural network control elements further includes a plurality of channel cluster modules that connect the network control switch of said network control element to a corresponding one of the plural terminals, each of the plural channel cluster modules being arranged for transmitting downstream on a respective, single carrier frequency (figure 4, col. 3 lines 3-59).

21. As to claim 14, **Hiekali** teaches the invention as claimed in claim 10, wherein said details are said access node being configured to direct said signal from said network switch to said terminal relieves said network switch of requiring details of the access network (figure 3, col. 3, line 3-col. 3, line 24).

22. As to claim 15, **Hiekali** teaches the invention as claimed, including a communication system comprising the access node, the transmission network and the plural terminals of claim 10. Therefore, claim 15 is reject the same rational as to claim 10, above.

23. As to claim 16, **Hiekali** does not explicitly teach wherein a terminal of the plural terminals comprises signaling means for exchanging layer control information with said network switch, said control information being exchanged transparently between the signaling terminal and said network switch.

However, **Hiller** teaches wherein a terminal of the plural terminals comprises signaling means for exchanging layer control information with said network switch, said control information being exchanged transparently between the signaling terminal and said network switch (abstract, col. 24, line 16- col. 25, line 14, cot. 40, lines 4-49, col. 56, line 48-col. 57, line 12).

It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention was made to combine the teaching of **Hiekali and Hiller**

because it would have provided a central communication network can perform and handle a transit switching function on a mix of standard and proposed format cells.

24. As to claim 17, **Hiekali** teaches the invention as claimed in claim 15, further comprising an access network that includes said access node and said transmission network, wherein said network switch comprises a proxy signaling function for deriving network layer control information from at least one of session layer and transport layer information exchanged, over said access network, between a terminal of the plural terminals and said network switch (figure 4, abstract, cot. 3 lines 60-col. 5 lines 45).

25. As to claim 18, **Hiekali** does not explicitly teach wherein said network switch is connected to an external network, and is configured to set up a connection between said external network and said access node for a call by sending respective set-up messages to said external network and said access node in response to receipt, at said access node, of a request transmitted by one of the plural terminals by a transparent connection to said network switch.

**Hiller** teaches said network switch is configured to set up a connection for a call by sending respective set-up messages and said access node in response to receipt, at said access node, of a request transmitted by one of the plural terminals by a transparent connection to said network switch (abstract, col. 24, line 16- col. 25, line 14, col. 28, line 63-col. 29, line 14, col. 40, lines 4-49, col. 56, line 48-col. 57, line 12).

It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention was made to combine the teaching of **Hiekali and Hiller** because it would have provided a central communication network can perform and handle a transit switching function on a mix of standard and proposed format cells.

26. As to claim 19, **Hiller** teaches the invention as claimed in claim 18, wherein said access node, in response to receiving the respective set-up message, reserves resources for the call and subsequently submits a set-up message downstream toward said one of the plural terminals (col. 26, line 27-col. 29, line 14, col. 58, lines 24-67). It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention was made to combine the teaching of **Hiekali and Hiller** because it would have provided a central communication network to manage a large telecommunication networks that provides flexibility for interconnecting large access switches.

27. As to claim 20, **Hiekali** teaches the invention as claimed, including a method for configuring a communication system, comprising: providing a transmission network (figure 3, *i.e., frame relay network, SMDS network, ATM LAN network*); providing a network switch (figure 3, *i.e., ATM switch 301*); connecting, by means of a access node, said network switch to the transmission network; and said access node being configured to direct a signal from said network switch to a terminal of the plural terminals intended as a destination (figures 3-5, 8-10, abstract, 1 lines 32-col. 2 lines

33, col. 3 lines 3-59, col. 14 lines 20-60 *–ATM gateway 302 directs data packet/signal from ATM switch 301 to user using appropriate protocol*), connecting, correspondingly, a plurality of sub-networks to the network control element, and connecting, respectively, a plurality of terminals to the plural sub-networks (figures 2-3, col. 3, lines 3-59 *–ATM gate 302 connects to user via frame relay network 302-1, ATM LAN switch 302-N-3, ...SMDS network 302-N-M (i.e., sub-networks)*).

However, **Hiekali** does not explicitly teach transmitted on a plurality of unique carrier frequencies selected from a plurality of known carrier frequencies and said access node including an access node switch and a plurality of network control elements and wherein said network switch is relieved of knowing details of said access network that said network switch would otherwise need for directing said signal to the intended destination terminal.

**Hiller** teaches transmitted on a plurality of unique carrier frequencies selected from a plurality of known carrier frequencies (col. 3, line 20-col. 4, line 36, col. 10, line 20-col. 11, line 15) and said access node including an access node switch and a plurality of network control elements (figures 3-4, i.e., ATM cell switch 600, figure 6, plurality of access switches 1) said network switch is relieved of knowing details of said access network that said network switch would otherwise need for directing said signal to the intended destination terminal (abstract, figures 6-7, 11-12, and 23, col. 11, line 23-col. 12, line 44, col. 26, line 27-col. 27, line 7, col. 28, line 53-col. 29, line 14 – *converting/remapping VPI/VCI and sending to user*).

It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention was made to incorporate the teaching of said access node including an access node switch coupled to said network switch and said access node switch controlling all of the access-network-specific switching without said access node switch having to know a carrier frequency allocated to a terminal coupled to a sub-network of the plural sub-networks, as disclosed in **Hiller** into **Hiekali** system because it would have provided a central communication network to manage a large telecommunication networks that provides flexibility for interconnecting large access switches (abstract).

**Conclusion**

28. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

29. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu Ha Nguyen, whose telephone number is (571) 272-3989. The examiner can normally be reached Monday through Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Najjar Saleh, can be reached at (571) 272-4006.

The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300 for regular communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thu Ha Nguyen

Primary examiner

March 31, 2007